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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,143	10/05/2000	Rakesh Bhatia	042390.P5698D	2639

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EXAMINER
ATKINSON, CHRISTOPHER MARK

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 05/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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	9

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☑ Responsive to communication(s) filed on 2/7/02.

☑ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☑ Claim(s) 7-12, 17-21 and 27-32 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☑ Claim(s) 7-12, 17-21 and 27-32 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☑ The proposed drawing correction, filed on 2/7/02 is ☑ approved ☐ disapproved.

☑ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

★ U.S. GPO: 1996-410-236/40050

Response to Amendment

Applicant's arguments filed 2/7/2002 have been fully considered but they are not persuasive.

Specification

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the originally filed

specification fails to disclose the limitations of claims 8-10, 12, 20 and 32.

Claim Rejections - 35 USC § 112

Claims 8-10, 12, 20 and 32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification fails to disclose the limitations of claims 8-10, 12, 20 and 32.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-8 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Gunnerson et al.

The patent of Gunnerson et al., in figures 1-3, discloses the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

> art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 9, 11, 21, 28 and 30 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. and Villaume. The patent of Gunnerson et al. discloses all the claimed features of the invention with the exception of the heat source being a processor and the second heat dissipating mechanism being a plate located beneath a keyboard.

The patent of Hung et al. discloses that it is known to use a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device as disclosed in Kurusu et al.

The patent of Villaume discloses that it is known to have a heat pipe cooling device and plate located beneath and parallel to a keyboard for the purpose of compactly cooling an electronic device in a laptop computer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. as modified, a heat pipe cooling device and plate located beneath and parallel to a keyboard for the purpose of

compactly cooling an electronic device in a laptop computer as disclosed in Villaume.

Claims 17-19, 27 and 31 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. The patent of Gunnerson et al. discloses all the claimed features of the invention with the exception of the heat source being an electronic device and the fins welded to the heat pipe.

The patent of Hung et al. discloses that it is known to use a heat pipe thermally coupled to an electronic device, and a heat dissipating plate and fins welded to the heat pipe for the purpose of removing heat from a desired device such as an electronic device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. a heat pipe thermally coupled to an electronic device, a heat dissipating plate and fins welded to the heat pipe for the purpose of removing heat from a desired device such as an electronic device as disclosed in Kurusu et al.

Claims 12, 20, 29 and 32 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. as applied to claims 17-19, 27 and 31 above, and further in view of Feldman, Jr. et al. The patent of Gunnerson et al. as modified, discloses all the claimed features of the invention with the exception of the limited portion comprises a narrowed portion.

The patent of Feldman, Jr. et al. discloses that it is known to use a limited portion of a heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. as modified, a limited portion of a heat pipe

comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe as disclosed in Feldman, Jr. et al.

Response to Arguments

Applicant's concerns directed toward the specification objections and 35 U.S.C. 112, first paragraph rejections are not found persuasive. The originally filed specification fails to disclose **the elected species**, as illustrated in figure 4, having the limitations of claims 8-10, 12 and 20. More specifically, the originally filed specification fails to disclose the elected species having the first thermal conductivity at least twice (claim 8) or is approximately four times (claim 9) the second thermal conductivity; the first heat dissipation mechanism is an active heat dissipation mechanism as claimed in claim 10 and the heat pipe is a single sealed tubular member which is uniformly tubular except for the limited conductivity portion as claimed in claims 12 and 20.

Applicant's concerns directed toward Gunnerson et al. are not found persuasive. Gunnerson et al., in at least in figures 1 and 2, illustrate a first heat dissipating mechanism (25), a second heat dissipating mechanism (27) and a variable thermal conductivity heat pipe (12) having a first portion (13) thermally coupled to a heat generating component (hot air flow generated by a hot object), a second portion (17) thermally coupled to the first and second heat dissipating mechanisms (25,27) and a third portion (18,20) thermally coupled to the first and second heat dissipating mechanisms (25,27) and a limited conductivity portion (21,22,16). The first portion (13) of the heat pipe (14) removes heat from the hot air source/object. The claims do not require the dissipating mechanisms to be physically coupled but rather thermally coupled to

components/elements.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Hung et al., not Gunnerson et al., discloses that it is known to use a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device. The device of Gunnerson et al. discloses a single tubular device. Feldman, Jr. et al. discloses that it is known to use a limited portion of a single tubular heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the heat pipe of Gunnerson et al. as modified, a limited portion in the heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe as disclosed in Feldman, Jr. et al.

In response to applicant's argument about Gunnerson's et al. system not being used in a computer, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, the above

arguments are of general allegation's and are not supported by any factual data. Computer systems are adversely affected by humidity and temperature. Therefore, it is logical and obvious to keep the humidity and temperature low as taught by Gunnerson et al. within any computer system and/or electronic device/product.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.

CHRISTOPHER ATKINSON
PRIMARY EXAMINER

C.A.
May 15, 2002